

## **Abstract**

The present invention is related to a method for estimating a movement speed of a mobile unit in a mobile radio communication system. First, a signal from the mobile unit is received. Then, a first signal is generated by using a first filter having a first cut-off frequency to filter the signal. A first speed is obtained based on the first signal. A second signal is further generated by using a second filter having a second cut-off frequency to filter the signal. A second speed is obtained based on the second signal. Then the movement speed of the mobile unit is determined according to the first speed and the second speed.